

## Solving Equations Mash-Up

Date \_\_\_\_\_ Period \_\_\_\_\_

**Solve each equation.**

1)  $\frac{3}{13} = \frac{18}{13}x$

2)  $-\frac{10}{7}b = -\frac{8}{3}$

3)  $-\frac{29}{21} = \frac{6}{7}m$

4)  $-\frac{35}{6} = 5m$

**Solve each proportion.**

5)  $\frac{x}{2} = \frac{7}{6}$

6)  $\frac{7}{b} = \frac{4}{6}$

7)  $\frac{10}{5} = \frac{x+3}{10}$

8)  $\frac{b+2}{8} = \frac{8}{4}$

**Solve each equation. Remember to check for extraneous solutions.**

$$9) 6\sqrt{5 - 19n} = 60$$

$$10) \sqrt{n - 4} - 6 = 3$$

$$11) 0 = \sqrt{p + 10} - 10$$

$$12) \sqrt{\frac{n}{5}} = 8$$

**Solve each equation.**

$$13) 5 = \frac{v}{2} - 1$$

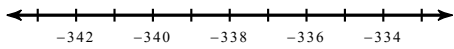
$$14) -7 + 5k = 13$$

$$15) 1 = \frac{b}{2} + 10$$

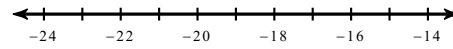
$$16) -12 = -(x + 10)$$

Solve each inequality and graph its solution.

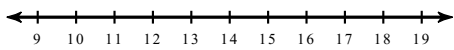
17)  $-20 \geq \frac{x}{17}$



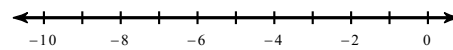
18)  $14x < -238$



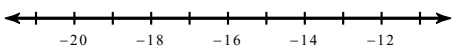
19)  $35 \geq x + 20$



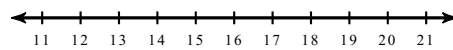
20)  $-26 > -18 + x$



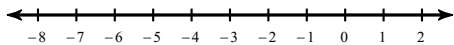
21)  $112 > -4(n - 10)$



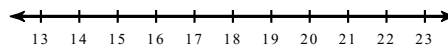
22)  $7 + \frac{x}{4} > 11$



$$23) 0 \leq \frac{r+3}{2}$$



$$24) -8(-5 + x) \geq -112$$



**Solve each equation.**

$$25) |n| = 3$$

$$26) |n| = 2$$

$$27) |v| = 1$$

$$28) |x| = 4$$

$$29) |-6 + m| = 10$$

$$30) |-6x| = 48$$

$$31) |p + 1| = 7$$

$$32) |n - 7| = 17$$